

Sub B2

What Is Claimed Is:

1. A liquid crystal display including liquid crystal pixel cells arranged at each intersection between a plurality of gate lines and a plurality of data lines, comprising:
a thin film transistor associated with each pixel cell;
a storage capacitor; and
a smectic liquid crystal between an upper substrate and a lower substrate, wherein the smectic liquid crystal has spontaneous polarization in a range of approximately 2nC/cm^2 to 100nC/cm^2 and a storage capacitance is in a range of approximately 1nF/cm^2 to 13nF/cm^2 for optimizing transmittance depending on the spontaneous polarization of the smectic liquid crystal.

2. The liquid crystal display of Claim 1, wherein the spontaneous polarization is in a range of approximately 2nC/cm^2 to 10nC/cm^2 and the storage capacitance is in a range of approximately 1nF/cm^2 to 4.5nF/cm^2 .

3. The liquid crystal display of Claim 1, wherein the spontaneous polarization is in a range of approximately 10nC/cm^2 to 70nC/cm^2 and the storage capacitance is in a range of approximately 4nF/cm^2 to 7nF/cm^2 .

4. The liquid crystal display of Claim 1, wherein the spontaneous polarization is in a range of approximately 70nC/cm^2 to 100nC/cm^2 and the storage capacitance is in a range of approximately 5nF/cm^2 to 13nF/cm^2 .
